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| 10/690,860 | 10/22/2003 | Ian M. Williams | NVDA/P000736 | 6926 |

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PATTERSON & SHERIDAN L.L.P.
595 SHREWSBURY AVE, STE 100
FIRST FLOOR
SHREWSBURY, NJ 07702

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| EXAMINER |
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HA, LEYNNA A

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| ART UNIT | PAPER NUMBER |
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2135

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12/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/690,860

Applicant(s)

WILLIAMS ET AL.

Examiner

LEYNNA T. HA

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 30-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-29 are pending.
Claims 30-33 are cancelled.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/2/2007 has been entered.

Response to Arguments

3. Applicant's arguments filed 9/4/07 have been fully considered but they are not persuasive.

Regarding the argument on pg.8, where Ryan determines the recording of the digital content is unauthorized, the recording is disabled which does not suggest the claimed alterations of the digital content that are visually perceptible in a recorded version of the content. Examiner traverses this argument because the claimed invention merely includes altering image content where the altered content is visually perceptible in a recorded version.

The claimed does not recite or define authentication/authorization for the alteration of the image content. Plus, there is no limitation of the recording is protected or unprotected, whether during the altering of the image content is authorized or unauthorized, or the time frame the content is within the rendering unit. Then the claimed invention does not have any bearing on whether recording in an authorized/unauthorized manner and when or if the recording is disabled or altered under a particular condition. As long as prior art reads on altering the image content and that is visually perceptible in a recorded version.

Further, claim 1 and 7 broadly claims altering the image content within the rendering unit in response to tags in a data stream. The claimed altering image content can broadly be interpreted as any of the following adding a watermark, encoding, compression, adding field markers or tags, or any data that changes the original image content (col.5, lines 4455 and col.6, lines 45-55). The claimed rendering unit can broadly be interpreted as cable television system or set top device that supplies video to a subscriber, VCR, or recording circuitry such as a tape/disc recorder (col.6, lines 38-40 and col.9, lines 35-40). Hence, when applying the Ryan reference, the alterations of image content can be encoding video material or adding a watermark at the cable television system head end (co.5, lines 38-62), the black box adds a tag to the video (col.9, lines 45-60), or changing the copy-once bit to copy-never value during recording at the recording circuitry (col.6, lines 13-20 and 38-42), etc. Ryan

discloses allowing the first generation recording being made, the video being recorded is modified on the recording (col.4, line 67-col.5, line 5). The compliant recorder strips off the all the original field markers (col.9, lines 60-63) and is then played on a player (or recorder) and this video is played through the black box. Ryan also discusses the black box outputting the video where this video can be recorded by the compliant recorder which will output a second generation video recording having no field markers but still being viewable (col.10, lines 1-5 and 15-20). The video being played, viewable, or output to a recording obviously suggests viewable video. Therefore, Ryan reads on the claimed alterations of the image content are visually perceptible in a recorded version thereof.

As for combining Ryan with Fukushima, is to teach content is not visually perceptible for real time display. Fukushima discusses the prior art cannot display image in real time due to heavy calculation load resulting in unnatural images which intermittently displayed frame by frame. This requires a special purpose processor and circuit, thus would be costly and the apparatus scale increases (col.1, lines 42-47). Therefore, it would have been obvious for a person of ordinary skills in the art the Ryan and Fukushima combination teaches the alterations of the digital content are not visually perceptible for real-time display because due to heavy calculation load resulting in unnatural images which intermittently displayed frame by frame and requires a special purpose processor and circuit (col.1, lines 42-47).

Art Unit: 2135

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-14 and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan, et al. (US 6,374,036), and further in view of Fukushima (US 6,388,638).

As per claim 1:

Ryan discloses a method for protecting digital content, comprising:
providing digital content organized by frames to a rendering unit; and
(col.4, lines 26-33)

altering image content **(col.3, lines 1-21 and col.11, lines 17-23)** within the rendering unit in response to tags in a data stream provided thereto **(col.5, lines 42-67 and col.9, lines 45-67)**, wherein the image content is a portion of the digital content visible to a viewer **(col.10, lines 58-64 and col.11, lines 3-10), and [the alterations -of the image content are not visually perceptible for real-time display]** but are visually perceptible in a recorded version thereof.
(col.6, lines 45-55 and col.8, lines 18-20 and col.10, lines 1-35)

Ryan discloses that a hacker could not easily modify a video signal to force a particular attribute value without seriously degrading the entertainment

value of the program. Thus, it is obvious that Ryan's intention is to prevent viewing of the video if modifications were made. Such that a watermark is need to allow the user to view the recorded version (col.6, lines 45-50 and col.7, lines 40-42). Thus, it is obvious Ryan discloses the video frames are visually perceptible in a recorded version thereof. However, Ryan fails to discuss the alterations of the digital content are not visually perceptible for real-time display.

Fukushima discloses displaying images that have been recorded and able to change its display contents (col.1, lines 5-8 and 30-35). Fukushima discusses the prior art cannot display image in real time due to heavy calculation load resulting in unnatural images which intermittently displayed frame by frame. This requires a special purpose processor and circuit, thus would be costly and the apparatus scale increases (col.1, lines 42-47).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Ryan to teach alterations of digital content are visually perceptible in a recorded version with Fukushima to teach the alterations of the digital content are not visually perceptible for real-time display because due to heavy calculation load resulting in unnatural images which intermittently displayed frame by frame and requires a special purpose processor and circuit (col.1, lines 42-47).

As per claim 2: see Ryan on col.5, lines 41-45; discloses the method, according to claim 1, wherein the step of altering comprises randomly selecting

frames for alteration.

As per claim 3: see Ryan on col.7, lines 10-20; discloses the method, according to claim 1, wherein altering comprises removing at least one object visible to the viewer from a frame.

As per claim 4: see Ryan on col.7, lines 18-20; discloses the method, according to claim 1, wherein altering comprises relocating at least one object visible to the viewer in a frame.

As per claim 5: see Ryan on col.7, lines 18-20; discloses the method, according to claim 1, wherein altering comprises adding at least one object visible to the viewer to a frame.

As per claim 6: see Ryan on col.2, lines 40-41 and col.5, lines 64-67; discloses the method, according to claim 5, wherein the rendering unit is a graphics processing unit.

As per claim 7:

Ryan discloses a device for protecting digital content, comprising:
a rendering unit configured to detect tags in a data stream (**col.5, lines 42-67 and col.9, lines 45-67**) and to associate the detected tags with commands for altering image content (**col.3, lines 1-21 and col.11, lines 17-23**), wherein the image content is a portion of the digital content visible to a viewer (col.10, lines 58-64 and col.11, lines 3-10), and [the alterations of the image content are not visually perceptible for real-time display] but are visually

perceptible in a recorded version thereof. (col.6, lines 45-55 and col.8, lines 18-20 and col.10, lines 1-35)

Ryan discloses that a hacker could not easily modify a video signal to force a particular attribute value without seriously degrading the entertainment value of the program. Thus, it is obvious that Ryan's intention is to prevent viewing of the video if modifications were made. Such that a watermark is need to allow the user to view the recorded version (col.7, lines 5-12 and col.6, lines 45-50). Thus, it is obvious Ryan discloses the video frames are visually perceptible in a recorded version thereof. However, Ryan fails to discuss the alterations of the digital content are not visually perceptible for real-time display.

Fukushima discloses displaying images that have been recorded and able to change its display contents (col.1, lines 5-8 and 30-35). Fukushima discusses the prior art cannot display image in real time due to heavy calculation load resulting in unnatural images which intermittently displayed frame by frame. This requires a special purpose processor and circuit, thus would be costly and the apparatus scale increases (col.1, lines 42-47).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Ryan to teach alterations of digital content are visually perceptible in a recorded version with Fukushima to teach the alterations of the digital content are not visually perceptible for real-time display because due to heavy calculation load resulting in unnatural images which intermittently

displayed frame by frame and requires a special purpose processor and circuit (col.1, lines 42-47).

As per claim 8: see Ryan on col.6, lines 28-38; discloses the device, according to claim 7, wherein the rendering unit includes a table for storing symbols used when associating the detected tags with the commands.

As per claim 9: see Ryan on col.6, lines 39-42; discloses the device, according to claim 8, wherein the rendering unit comprises memory for storing overlays for alteration of the image content.

As per claim 10: see Ryan on col.5, lines 42-45; discloses the device, according to claim 8, wherein the rendering unit comprises a random number generator for randomly selecting when to apply the commands.

As per claim 11: see Ryan on col.5, lines 15-25; discloses the device, according to claim 10, wherein the random number generator randomly selects when to apply overlays.

As per claim 12: see Ryan on col.6, lines 48-50; discloses the device, according to claim 10, wherein the rendering unit comprises a decryptor.

As per claim 13: see Ryan on col.3, lines 43-45; discloses the device, according to claim 10, wherein the rendering unit is configured to detect watermarks and to alter image frames in response to detected watermarks.

As per claim 14: see Ryan on col.3, lines 43-45; discloses the device, according to claim 10, wherein the rendering unit detects watermarks and provides a graphical user interface in response to at least one detected

watermark.

As per claim 20: see Ryan on col.3, lines 24-26; discloses the device, according to claim 10, wherein the device is a digital video camera.

As per claim 21: see Ryan on col.3, lines 24-26 and col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a digital video disc recorder.

As per claim 22: see Ryan on col.3, lines 24-26 and col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a compact disc recorder.

As per claim 23: see Ryan on col.3, lines 24-26 and col.4, lines 1-4; discloses the recording device, according to claim 10, wherein the device is a hard disk drive recorder.

As per claim 24: see Ryan on col.3, lines 24-26 and col.7, lines 49-50; discloses the device, according to claim 10, wherein the device is a digital tape drive recorder.

As per claim 25: see Ryan on col.3, lines 24-26 and col.7, lines 49-50; discloses the device, according to claim 10, wherein the device is a floppy disk drive recorder.

As per claim 26: see Ryan on col.3, lines 24-26 and col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a solid state memory recorder.

As per claim 27: see Ryan on col.4, lines 1-4; discloses the device, according

to claim 10, wherein the device is a computer.

As per claim 28: see Ryan on col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a monitor.

As per claim 29: see Ryan on col.3, line 67 – col.4, line 4; discloses the device, according to claim 10, wherein the device is a television.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being anticipated by Ryan, et al. (US 6,374,036), and in further view of Rhodes, et al. (US 5,432,900).

As per claim 15:

Ryan discloses a device for protecting digital content, comprising a rendering unit configured to detect tags in a data stream (**col.3, lines 43-45**) and to associate the detected tags with commands for altering image content (**col.5, lines 42-67 and col.6, lines 7-12 and 21-51**). However, Ryan did not include the graphical user interface.

Rhodes discloses application software interfaces with system software through a graphics application program interface (API), a video API, and an audio API (col.2, lines 46-48). Therefore, it would have been obvious for a person of ordinary skills in the art to modify Ryan to include the API as taught in Rhodes because the APIs provide high level functional interface for the manipulation of graphics, video, and audio information (col.2, lines 49-51).

As per claim 16: see Ryan on col.3, lines 23-30; discloses the device, according to claim 15, wherein the graphical user interface provides a data entry block for entry of a key.

As per claim 17: see Ryan on col.6, lines 25-29; discloses the device, according to claim 16, wherein the rendering unit is configured to down sample in response to a failure to enter an acceptable key.

As per claim 18: see Ryan on col.4, lines 62-64; discloses the device, according to claim 16, wherein the rendering unit is configured to disable recording in response to a failure to enter an acceptable key.

As per claim 19: see Ryan on col.3, lines 15-18; discloses the device, according to claim 16, wherein the rendering unit is configured to randomly alter the selected frames in response to a failure to enter an acceptable key.

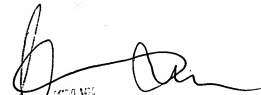
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LHa



LEYNNA T. HA
PATENT EXAMINER
ART UNIT 2135